

913.773  
F82r


Fowler, Melvin L.

Rutherford Mound, Hardin County, Ill.

(1957)



UNIVERSITY OF  
ILLINOIS LIBRARY  
AT URBANA-CHAMPAIGN  
ILL. HIST. SURVEY



Digitized by the Internet Archive  
in 2012 with funding from  
University of Illinois Urbana-Champaign

ILLINOIS HISTORICAL SURVEY

# **RUTHERFORD MOUND**

**HARDIN COUNTY, ILLINOIS**



**Melvin L. Fowler**

**ILLINOIS STATE MUSEUM**

**Scientific Papers**

**Volume VII**

**Number 1**



BOARD OF  
ILLINOIS STATE MUSEUM ADVISORS

M. M. LEIGHTON, Ph.D., Chairman  
Illinois State Geological Survey  
Urbana

EVERETT P. COLEMAN, M.D.  
Coleman Clinic  
Canton

PERCIVAL ROBERTSON, Ph.D.  
The Principia College  
Elsah

N. W. McGEE, Ph.D.  
North Central College  
Naperville

SOL TAX, Ph.D.  
University of Chicago  
Chicago

STATE OF ILLINOIS

WILLIAM G. STRATTON, Governor

DEPARTMENT OF REGISTRATION AND EDUCATION

VERA M. BINKS, Director

ILLINOIS STATE MUSEUM

THORNE DEUEL, Museum Director

---

SCIENTIFIC PAPERS, VOLUME VII, NUMBER I

---

RUTHERFORD MOUND

HARDIN COUNTY, ILLINOIS

BY

MELVIN L. FOWLER



1957

SPRINGFIELD, ILLINOIS

PRINTED BY AUTHORITY OF THE STATE OF ILLINOIS

(58581—6-57)



## ACKNOWLEDGMENTS

The help and contribution of the following people is acknowledged:

Mr. Irvin Peithman, Southern Illinois University, for calling the site to the attention of the Illinois State Museum;

Mr. Harry Don Rutherford and Mr. Virgil Rutherford of Sparks Hill, Illinois, for granting permission to excavate;

Mr. H. Eugene Kaegi of Sparks Hill, Illinois, for valuable assistance and materials from the Kaegi site;

Mr. Woodrow Milligan and Mr. C. C. Kerr of Cave in Rock, Illinois, for valuable help and cooperation;

Dr. J. Charles Kelley, Director of Southern Illinois University Museum, for loan of equipment;

Mr. Ernest Kunze, Forester for the Illinois Conservation Dept., for photographing the cache of rings and the turtle carapace dish *in situ* (Plates XIV, a and b, and XV, a);

Dr. Paul W. Parmalee, Curator of Zoology, Illinois State Museum, for analysis of the faunal materials;

Mr. Charles Hodge, Illinois State Museum Photographer, for the excellent plates;

Miss Bettye Broyles, Assistant in Anthropology, for drawings and aid in laboratory analysis; and

Drs. Thorne Deuel and Joseph R. Caldwell for helpful suggestions and comments on the manuscript and significance of this material.



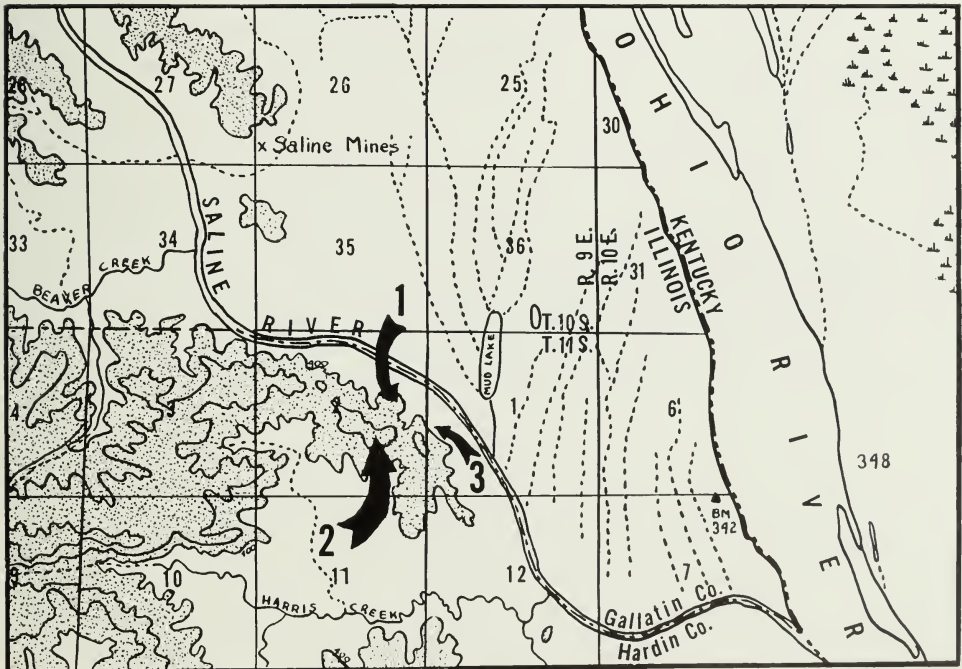
# RUTHERFORD MOUND

MELVIN L. FOWLER

The Rutherford Mound in Hardin Co., Illinois, was excavated during the summer of 1954 by the Illinois State Museum archaeological field party. This mound was of interest due to its proximity to the extensive and unusual Ferry Archaic Camp Site (Fowler 1957), and was excavated to determine if it bore any relationship.

The mound (10 feet high and approximately 60 feet by 75 feet in dimension) is located in the NW  $\frac{1}{4}$  of the SE  $\frac{1}{4}$  of Section 2 of Township 11 South and Range 9 East of the third principal meridian (see Figures 1 and 2). The mound is located on a point of land about 100 feet higher in elevation than the Ferry Site and one can look from this point out to the northeast over the Saline River and across the bottom land to the Ohio River. The hilly area around the mound is

FIGURE 1



Map showing the location of the Rutherford Mound (2) and nearby sites (the Ferry Site, 1, and the Kaegi Site, 3). Section taken from the U.S.G.S. Shawneetown Quadrangle.

forested with second growth timber largely composed of tulip poplar, black locust and some oak. The bottom lands are extensively farmed. Near the mound is evidence of an abandoned road cutting along the ridge. It is reported that many years ago there was a Negro colony living on the ridge and that this was the road they used. The roadway can be followed down the hillside past a large two story log house where it connects with the main roadway now in use in that area.

There are no other mounds in the immediate vicinity although skeletons have been plowed out of what is known locally as Black John's field. Material from this locality was not available; so it is impossible at the present time to determine the cultural affiliation of the burial area.

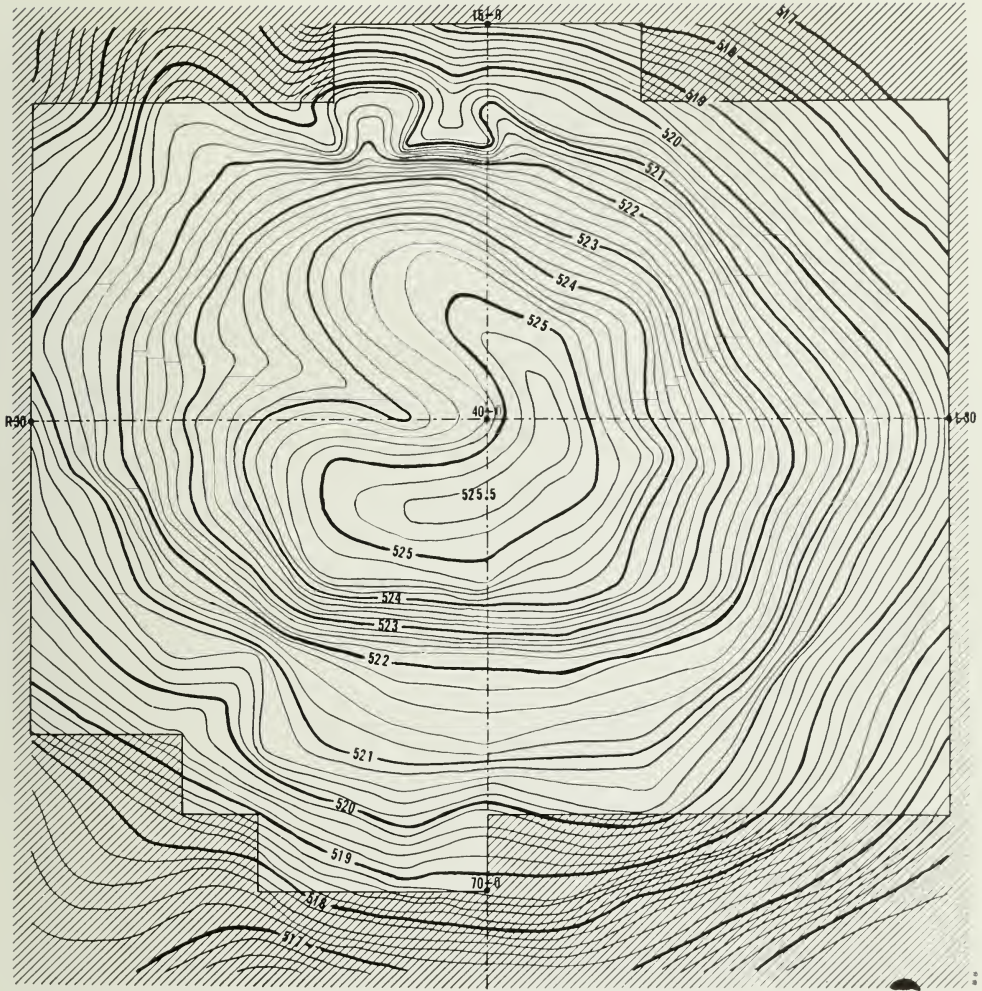
Several village sites are known from the region. One, the Kaegi Site, is located near the mound in the bottom lands and will be discussed later in this report as the village site possibly connected with this mound.

## DESCRIPTION OF THE RUTHERFORD MOUND

In describing the Rutherford Mound, I will give the sequence in which I think it was constructed. The first stage, common in Hopewellian mounds in Illinois, was the preparation of a white sandy clay floor. The limits of this clay floor were not distinct but covered most of the mound area, thinning out toward the edge of the mound. Fourteen burials were placed beneath or in the clay floor. These deep burials almost completely surrounded the central part of the mound (see Figure 3). Three of them (32, 33, and 34) were placed in a pit or a small natural gully. Most of the deep burials were in a poor state of preservation, especially those on the east side of the mound. This condition was probably due to their direct contact, in most cases, with the red clay subsoil of the site. In some instances (Burials 30, 31, and 34) only the teeth, slight traces of long bones, and artifacts remained to indicate the presence of the burial. The east side of the mound had been pitted by relic hunters, and the loose fill in these pits allowed the moisture to get deeper into the mound than where the original fill was undisturbed.

Following the preparation of the floor and the placing of the deep burials the mound was built up two to three feet in height, and 20 more burials were put in place (Figure 4). These burials were concentrated

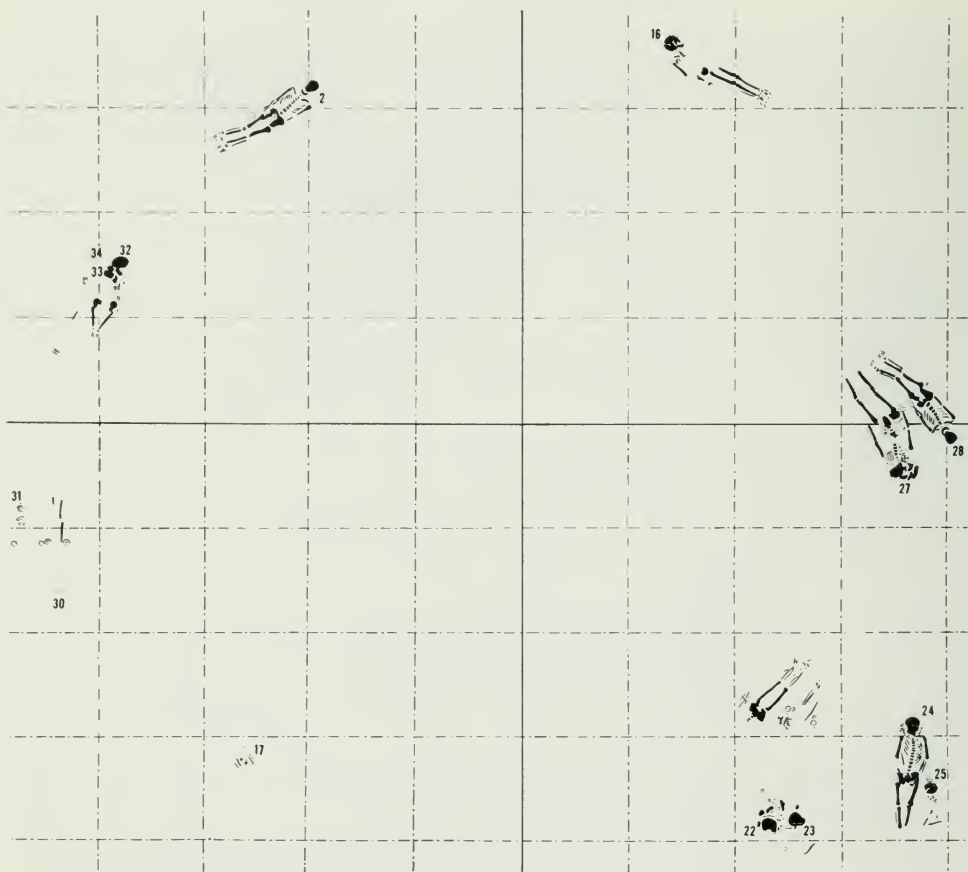
FIGURE 2



Contour map of the Rutherford Mound showing the 0 line and the 40 foot line from the right limit of excavation (40 R 30) to the left limit of excavation. The 0 line is on a magnetic N bearing with north being at the top. Cross-hatching indicates the unexcavated portions of the mound. The contour elevations are based on an **estimated** height above sea level taken from the U. S. G. S. Shawneetown Quadrangle.



FIGURE 3

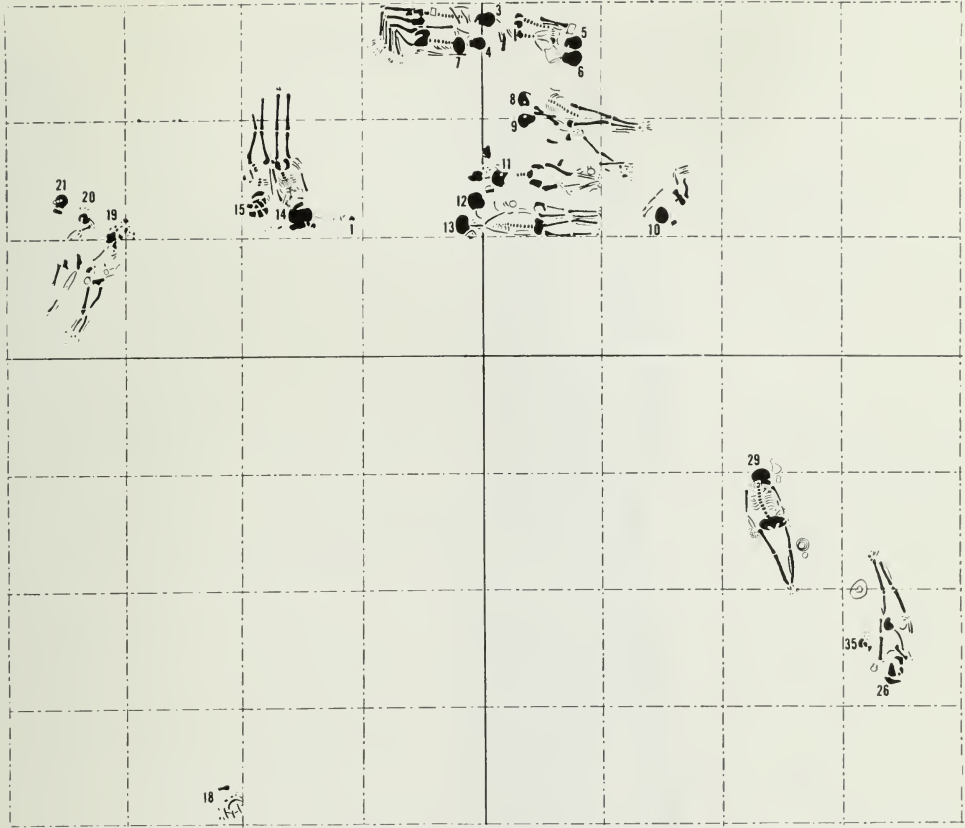


Burials found either on or below the prepared floor of the Rutherford Mound.

in an area just north of the central area of the mound and were buried approximating a circle in groups of two, three and four individuals together. There is evidence, which will be discussed later, that these individuals were not interred immediately upon death or that, if they were, they had been left exposed for a while before being covered. This is indicated by the displacement of bones and the fact that some bones were not in the proper place and, in some cases, were found in a pile near the head of the individual.

It is not possible to determine whether or not construction of the mound was halted at this stage. Since there was no indication of a humus line or change in soil texture, it is probable that the individuals

FIGURE 4



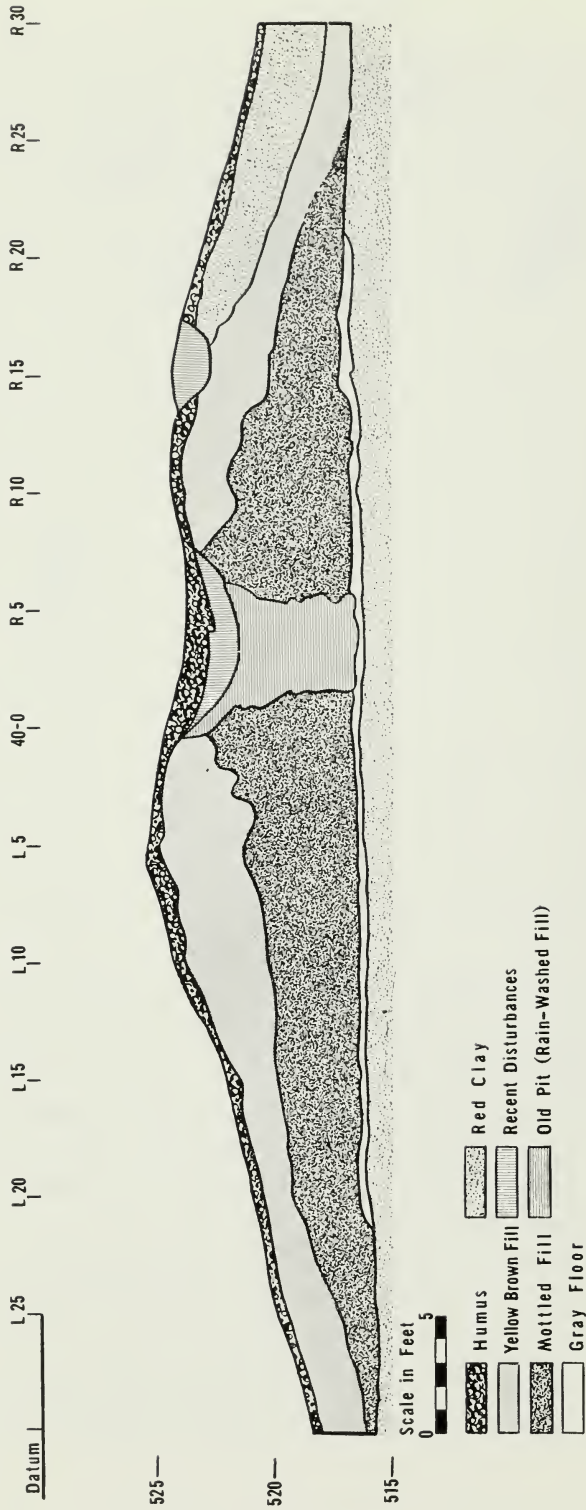
Burials placed in primary mound above the prepared floor at the Rutherford Site.

were buried and construction of the mound continued. The mound, thus far described, showed evidence of having been built by basket loads of earth, these visible for about three feet above the burial area. This probably constituted a primary mound that was later capped with from two to three feet of a brown loess-like material. Above this brown secondary mound fill (which shows no loading) was about six inches of grey humus (Figure 5).

One group of human bones (Burial 18) was included in the fill of the primary mound and probably was not a definite burial but bones scooped up with the soil being used for fill.

An intrusive burial (No. 1), slightly flexed and with no accompanying artifacts, was found three feet below the surface and near the

FIGURE 5



Cross section of the Rutherford Mound along the 40-foot line (from 40 L 30 to 40 R 30) looking south. This is the approximate central axis of the mound.



TABLE I

Burials and Accompanying Artifacts from the Rutherford Mound  
Hn 252, Hardin County, Illinois

Burial No.	Accompanying Artifacts	Position
1	None	Semi-flexed
2	None	Extended
3	None	Extended, knees flexed
4	Flake knife, shell beads	Extended, knees flexed
5	Beads, shell gorget	Extended, knees flexed
6	Pot	Extended, knees flexed
7	None	Extended
8	None	Extended
9	Copper disc	Extended
10	None	Possibly sitting
11	Clam shell, tooth	Extended, partly disarticulated
12	None	Extended, partly disarticulated
13	None	Extended, partly disarticulated
14	Clam shell, shell beads, copper panpipes, bone artifacts, galena	Extended
15	None	Extended
16	None	Extended
17	Shell	Disarticulated (?)
18	None	Disarticulated
19	Copper ear spool, galena	Extended
20	None	Extended
21	Clay platform pipe	Fragment of skull
22	Copper bead and pearl bracelet, beads	Extended (?), disarticulated
23	Copper ear spools, shell rings, beads	Extended (?), disarticulated
24	Cut shell beads	Extended
25	Falcon effigy pipe	Extended (?)
26	Shell spoon, tortoise shell dish, shell beads, bear teeth	Extended
27	Copper celt, shell beads, monitor pipe, panpipes	Extended
28	None	Extended
29	Sea shell dipper, shell spoon, shell beads, cannel coal and pottery ring cache, bear teeth	Extended
30	Copper ear spools, flake knife, panpipes, galena cube	Extended (?)
31	Copper ear spools	Extended (?)
32	None	Extended
33	None	Skull only
34	Raven effigy pipe	Extended (??)
35	None	Extended

center of the mound. A recent pit within a few inches of this burial may account in part for the degree of decomposition.

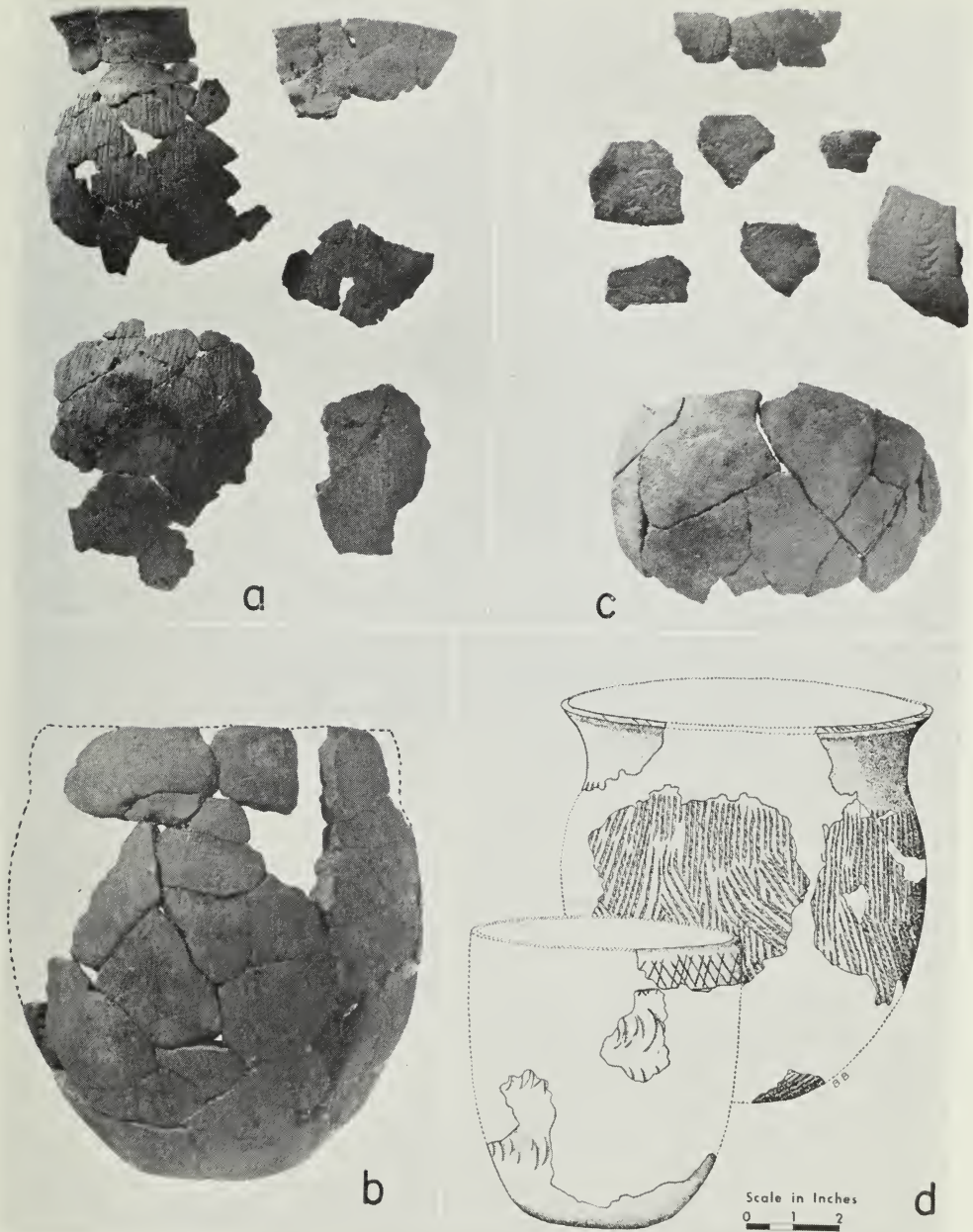
At some time in the past individuals digging for relics excavated a large pit about four feet wide into the center of the mound and into the grey floor where the marks of a square-pointed shovel were visible in 1954. The pit, apparently left open, was filled with fine-grained laminated soil washed in by rain. Since the fill was very compact, the pit was probably dug several decades ago. No present resident of the area remembers this digging. A later pit is the one mentioned as near the intrusive burial. Both of these pits were dug near the center of the mound, but the soil removed was thrown to the east side making the highest part of the mound appear in a different spot than it had been in aboriginal times.

Table I lists the burials and the material found with each individual. The following section will describe these artifacts in detail. An analysis of the skeletal material, giving age, sex and other pertinent physical anthropological data, will be published in a separate report.

### ARTIFACTS FOUND IN THE MOUND FILL

Several artifacts were found in the primary mound fill, but none in the secondary mound. Among these artifacts were fragments of three pottery vessels. One of these (Plate I, a and d) was in Square 20 R 10 on the contact between the primary and secondary mound fill and appears to have been nearly complete. All of the pot except the neck and rim area was covered with cord marking of tightly twisted parallel cords. The rim flares out and equals the diameter of the shoulder of the vessel. The paste is compact and grit-tempered and the walls are thin, about 5-6 mm. ( $\frac{1}{4}$  inch). These characteristics are all very similar to those enumerated for the Weaver Ware of the Central Illinois River Valley (Fowler 1955: 218). There is also a similarity to pottery of both the Lewis and Raymond foci of southern Illinois (see Maxwell 1951 and 1952: Figures 99 and 100). Both the Lewis-Raymond and Weaver Wares are considered as late or post Hopewell in time. Differences between this vessel from the Rutherford mound and these other pottery wares are the flattened base and rim more flaring than Weaver or Lewis-

# PLATE I



Pottery found in mound fill at the Rutherford Mound; a, cord-marked Lewis-Raymond type pot found at top of primary mound; b, flat based pot from primary mound fill having Jackson Ware paste and decorated with rocker-stamping; c, flat based vessel from primary mound fill; sand-tempered, it is decorated with rocker-stamping and has a crudely cross-hatched rim; d, hypothetical reconstruction of pots a and b.

Raymond vessels. The presence of this pot indicates that the primary mound was built in late Middle Woodland times.

Two other pots (Plate I, b and c) were found in the fill of the southwest portion of the mound (Square 50 L 25). These were together and nearly complete. One of these is an oval-shaped vessel with a flat base. The walls are thick (8 mm. or  $5/16''$ ) and the paste is clay tempered. The body is covered with plain rocker stamping, the rim area is plain, and the lip is rounded and lightly notched. This vessel is similar in paste and shape to the Jackson Ware (Griffin 1952: 122 ff) so common as a utilitarian pottery on Hopewellian sites in southern Illinois. The second of these two pots has thin walls (4 mm. or  $1/8''$ ) and sand-tempered paste. The rim area is decorated with cross hatching set off from the rest of the vessel by a thin incised line. The neck area is plain and the body is decorated with at least three horizontal rows and one vertical row of plain rocker-stamping. A hypothetical reconstruction of this vessel is shown in Plate I, d. No sherds definitely connecting the rim and body portion of the vessel were found. This flat-based beaker-shaped pot is an unusual form for the southern Illinois area. The decoration is typically Hopewellian, albeit crude. The nearest counterpart to the shape suggested by our reconstruction is a pot from the Turner Group in Ohio (Willoughby 1922: Plate 23). Similar vessel forms are more common throughout the southeastern United States. For example in the lower Mississippi Valley similar forms are known from the Tchefuncte (Ford and Quimby 1945: 45 ff) and Marksville (Ford and Willey 1940) cultures (see also Ford 1952, Figure 2 and discussion).

A whelk dipper (*Busycon perversum*) was found in the south part of the primary mound (Plate II). Two human finger bones occurred nearby.

One copper ear spool (Plate III, h) was found in the mound fill with the enamel cap of a human molar. The ear spool is two inches (50 mm.) in diameter and the central depression is  $7/8$  of an inch (22 mm.) in diameter and  $1/8$  of an inch (3 mm.) in depth.

Worked galena cuboids, sheets of mica, and hammerstones (Plate III, f, g, i and j) were found on several occasions in the mound fill. None of the mica showed signs of having been worked. Chipped flint



## PLATE II

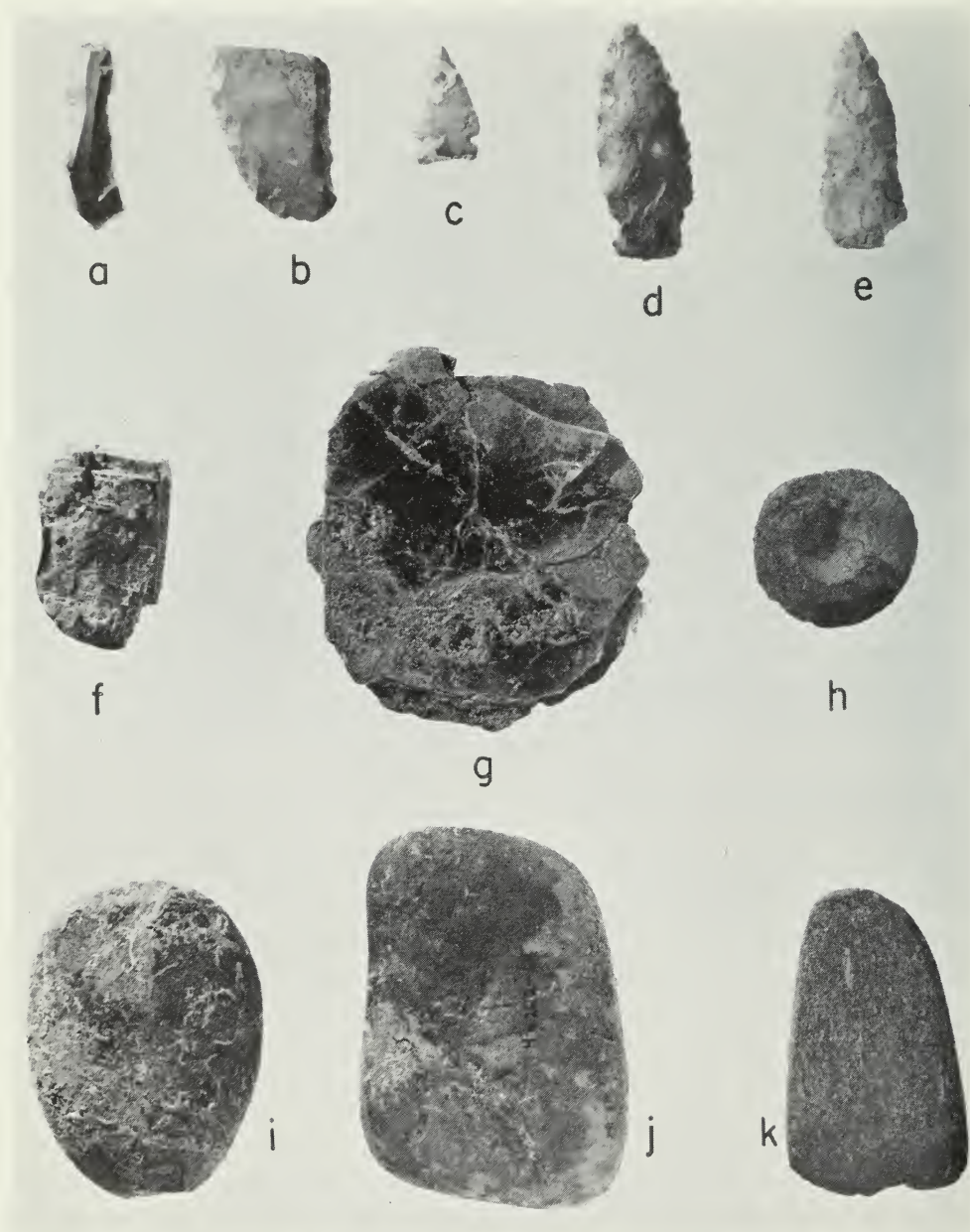


Dipper made of whelk (*Busycon perversum*) found in primary mound fill associated with two human finger bones.

was represented in the mound fill by three projectile points (Plate III, c, d and e), a prismoidal flake knife (Plate III, a), and blade fragments. These projectile points are of a form (side-notched) that appear first in the Archaic but last in Hopewell times, so offer us little clue for dating the mound fill. A well-worked celt (Plate III, k), was found near the pots in Square 50 L 25. It is  $3 \frac{13}{16}$  inches (97 mm.) long and  $2 \frac{3}{16}$  inches (56 mm.) wide. The celt, rectangular in cross section, is roughly ground except for the bit which is polished.

Most of these mound inclusions suggest a Hopewellian affiliation. Such items as the projectile points and hammerstones, however, could be incidental inclusions as a result of scooping up mound fill from an area previously occupied. However, the way the pottery occurred and the presence of such distinctive and rare artifacts as the copper ear spool, mica sheets and galena fragments indicate that they were left by the

PLATE III



Artifacts found in the mound fill at the Rutherford Mound: a, prismoidal flake knife; b, side scraper; c, d and e, side-notched projectile points; f, galena; g, mica; h, copper ear spool; i and j, bi-pitted hammerstones; k, stone celt.



## R U T H E R F O R D   M O U N D

builders of the mound. Whether or not they were offerings, were lost in the fill, or, in the case of the pots, were broken in use by the workers is difficult to decide. The finding of the complete whelk dipper with two human finger bones is unusual enough to suggest that it, at least, was left as an offering to the deceased.

Several mussel shells and other faunal remains were found in the mound fill. Species identified by Dr. Paul W. Parmalee, Illinois State Museum zoologist, are as follows:

Species	Number of fragments
Woodchuck ( <i>Marmota monax</i> ) .....	2
<i>Amblema peruviana</i> (Blue-point) .....	2
<i>Fusconaia ebenus</i> (Niggerhead) .....	3
<i>Anodonta</i> sp.? (Floater) .....	1
<i>Obovaria retusa</i> .....	1
<i>Elliptio dilatatus</i> (Spike) .....	1

The presence of mussels in the mound may be due to the use of village refuse for fill or, alternatively, may represent trash from the meals of the workers on the mound. The latter possibility was suggested by a large quantity of charcoal in Square 25 L 10 which may be from a camp fire. This deposit bore no apparent relationship to any of the other features found. Samples of the charcoal have been submitted to the University of Michigan for radiocarbon assay.

## DISCUSSION OF BURIALS AND ASSOCIATED ARTIFACTS

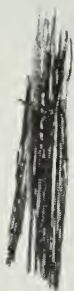
### *Burials on and below Mound floor*

Fourteen whole or fragmentary burials were found either on or below the level of the prepared floor of the mound (Figure 3). The position of these burials seems deliberate; that is, they almost completely circle the central area of the mound. I will discuss them beginning with Burial 17 in the southwest corner of the mound and proceed clockwise.

#### BURIAL 17.

Fragments of long bones found in the grey floor level of the mound were all that remained of Burial 17. These fragments, possibly of the radii and ulnae, suggest partial articulation of the skeleton. It is possible that the acidity of the soil caused the disappearance of the other bones of this individual. A mussel shell fragment was found in association.

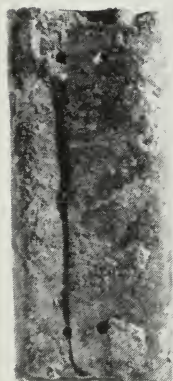
PLATE IV



a



c



b



Panpipes or conjoined copper tubes from the Rutherford Mound showing front (upper row) and back views of each as well as preserved fragments of reed tubes. a, Burial 27; b, Burial 31; c, Burial 14. Scale: a is  $3\frac{3}{4}$  inches (9.5 cm.) in length.

## RUTHERFORD MOUND

### BURIALS 30 AND 31.

Burials 30 and 31 were on top of the red clay subsoil under the mound, but due to the soil condition only the enamel caps of the teeth, a fragmentary femur, and portions of lower leg bones remained. The two individuals were apparently buried side by side with the head of one placed by the feet of the other. Both had an ear spool in each hand. The ear spools were 4.5 - 5.5 cm. ( $1\frac{3}{4}$  to  $2\frac{1}{8}$  inches) in diameter and were wound with string on the axle. Burial 31 had on its chest a panpipe, a prismoidal flake knife and a cuboid of galena. The panpipe,  $3\frac{3}{4}$  inches (95 mm.) long and  $1\frac{7}{8}$  inches (48 mm.) wide, was made of a sheet of copper wrapped around three reeds, fragments of which were preserved. On the back side of the panpipe were what appear to be fabric remnants, possibly part of the garment of the individual.

### BURIALS 32, 33, AND 34.

Three individuals were apparently interred together but preservation was poor and the exact position or extent of the remains was difficult to determine. The left (uphill) side of Burial 32 was fairly complete but only fragments of long bones and the illium of the right side were remaining. The skull of 33 was found in a fragmentary condition on the chest of Burial 32. A fragment of a long bone may have been part of the leg of Burial 33. To the left of the skull of 32 were found traces in the soil of possibly another skull. This was labeled Burial 34.

Below the skulls and (apparently associated) with these burials (possibly with 33) was an effigy platform pipe of conglomerate. This pipe was carved in the form of a raven (Plate V),  $4\frac{13}{16}$  inches (122 mm.) long,  $2\frac{7}{16}$  inches (62 mm.) high, with the base  $1\frac{5}{8}$  inches (41 mm.) wide. This beautifully carved specimen is one of the finest effigy pipes ever found. The artist was able to recapture in stone the typical posture of this species indicating details which definitely identify it as a raven rather than a crow. These features are the slightly hooked



## PLATE V



Raven Effigy Pipe found with Burial 33 at the Rutherford Mound. The pipe is made of conglomerate material and is  $4 \frac{13}{16}$  inches long and  $2 \frac{7}{16}$  inches high at the bowl. The hole is  $\frac{17}{32}$  of an inch in diameter.

beak, the large “whiskers” on either side of the beak, and the convex rather than straight end of the tail.

### BURIAL 2.

Found lying on the grey floor of the mound, this burial was extended but was not accompanied by artifacts. It was well preserved although apparently crushed by the weight of the earth. The lower arm bones and the lumbar vertebrae appeared fractured and somewhat displaced as if some weight or pressure had been applied directly to that area. Whether this was before burial or after was not determinable.

### BURIAL 16.

This burial was also extended in the grey floor of the mound. Although evidently articulated at the time of burial, the left side from the cervicle vertebrae to the femur was absent. We found no indication of

## RUTHERFORD MOUND

intrusion in this area nor any evidence of burning of the individual in place. This phenomenon remains unexplained but perhaps examination of the bones will offer a clue.

### BURIALS 27 AND 28.

These burials, extended side by side, were among the richest burials in the mound. Burial 28, although apparently complete, was in a poor state of preservation and it was possible to determine no more than its position and relationship to the others. Burial 27 was also extended and although better preserved was not as complete as 28. The feet, the left hand, and many of the ribs were missing and the skull was badly crushed. Again we have only a partial skeleton which appears to have been articulated at the time of burial. No evidence of fire was found that would indicate partial cremation at the burial location. This phenomenon is present with several other burials in the mound and its possible explanation will be discussed in a later section of this report.

### PLATE VI



Artifacts with Burials 27 and 21. a, copper celt with Burial 27 (in right hand)  $3 \frac{3}{16}$  inches long and  $1 \frac{9}{16}$  inches wide; b, conjoined copper tubes or panpipe from chest of Burial 27 (see also Plate IV); c, platform pipe of soft stone found under left leg of Burial 27; d, a grit tempered clay platform pipe found with Burial 21. It is  $3 \frac{3}{8}$  inches (90 mm.) long.

# F O W L E R

Several outstanding artifacts were found with Burial 27 (Plate VI). In the right hand was a small copper celt (3 3/16 inches [81 mm.] long and 1 9/16 inches [40 mm.] wide at the bit.) This celt was plano-convex in cross section with squared edges. A three-tubed copper panpipe, the best preserved found in the mound, was on the left chest area of this burial. Inside it were preserved several fragments of the reeds that had been encased in a sheet of copper. The front surface was indented between the tubes whereas the back was flat. In the back the two ends of the original sheet overlapped about 3/8 of an inch. Holes had been perforated in the two ends of the copper sheet just at the edge of the overlap. These holes were possibly used to tie the ends together and hold them in place. This panpipe was of exactly the same size as the one found with Burial 31. Since the only preserved portions of the tubes were those parts encased in copper, there is no way of determining how long the tubes were originally.

## PLATE VII



Different types of beads from the Rutherford Mound. a, large globular bead; b, small globular beads; c, ring beads; d, medium sized globular beads; e, plano-convex beads; f, tubular beads; g, h and i, split bear canines.



## RUTHERFORD MOUND

Under the left lower leg of this burial was a platform pipe made of soft stone. This pipe (4 23/32 inches or 120 mm. long, 1 1/4 inches or 31 mm. wide and 2 1/8 inches or 54 mm. tall) had a flat platform and a bowl with an expanded base. It was very soft when found and warped out of shape due to the pressure of the earth.

Many beads were found with Burial 27 — some (236) around the neck and some in the abdominal region (see Plate VII and Table II). Those around the neck appeared to be in three parallel lines and probably were a necklace or "choker." Those in the abdominal region indicated no particular pattern but may have been sewn to a garment. The beads were small globular and disc-shaped beads of cut shell (Plate VII, b and c). Other beads were found under the right wrist indicating that they may have been part of a bracelet.

### BURIALS 24 AND 25.

Burial 24 was a child buried beside Burial 25. The feet were missing from Burial 25 but the rest of the bones were present. The fragile

**TABLE II**  
Distribution of Bead Types with Burials in the Rutherford Mound

Burial No.	Globular	Ring	Disc	Plano-Convex	Tubular	Margin-ella	Canines	Location
4		571						Neck and shoulder
5	145	53						Around neck and shoulder, 4-5 strands
11						5		
14	10		30					Disc beads around neck, globular beads in mussel shell under right arm
Between 14-15			3					
22 and 23	13							With skulls
23	213							Left wrist
24	20							
26	10						3	Above pelvis
27	25	211						Around neck
27	29	73						Around wrists
29				30				Around neck
29	4			1	1		1	Left pelvis and arm
29	30						10	Right arm and pelvis

PLATE VIII



Platform pipe with falcon effigy bowl with Burial 24. It is made of reddish Ohio pipestone and is  $2 \frac{9}{16}$  inches (65 mm.) from front proximal end to end of tail. a, top view; b, side view.

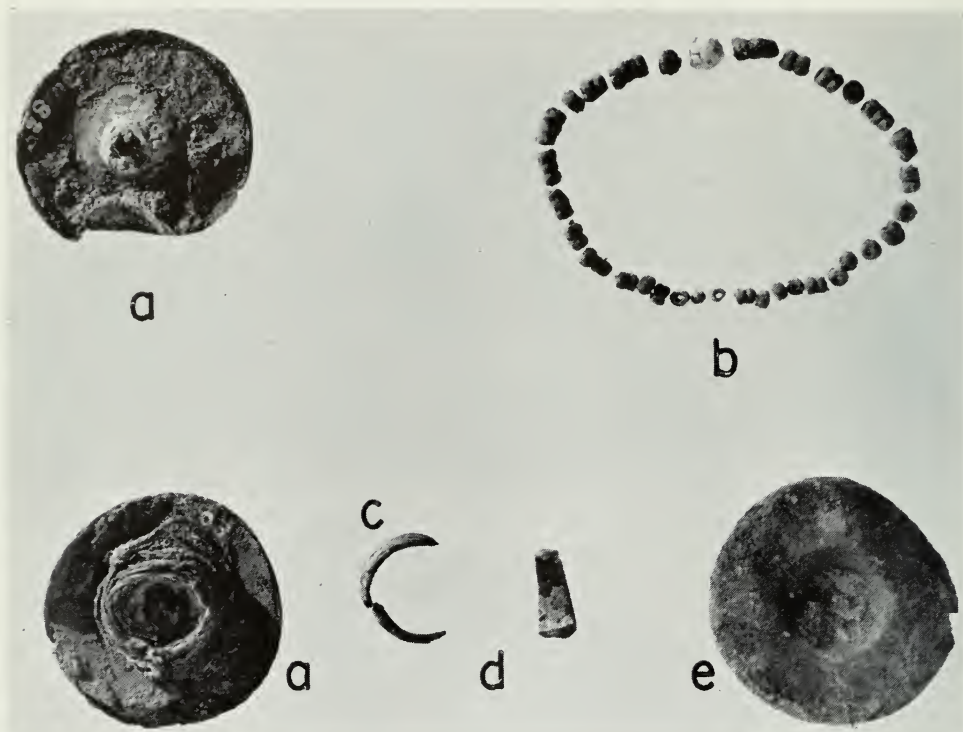
## RUTHERFORD MOUND

condition of the bones made it difficult to tell if Burial 24 was complete, but it appeared to have been a flexed burial. An unusual feature of these two burials was that a platform effigy pipe (Plate VIII) was buried near the head of the child while the only artifacts found with the adult were beads in the neck and left wrist area. The effigy was that of a falcon and made of reddish tan mottled Ohio pipestone. The artist presented the characteristics of the bird although the head is greatly enlarged. The main feature represented on this pipe that identifies it as a falcon is the notched bill. The distal end of the base was broken off just beyond the bowl. There are no jagged edges but the broken area is worn smooth, indicating that the pipe was kept for some time after the break occurred. It was not ground down to this smoothness as the surface is irregular. Another indication that this pipe had been kept a long time is the fact that many of the details of the carving were nearly obliterated, in contrast to the raven pipe found in this mound where the details were sharply defined.

### BURIALS 22 AND 23.

These were the two most unusual burials in the mound. In Square 50 L 10 the lumbar vertebrae, the pelvic girdle, the legs and feet and fragments of the left radius and ulna of an individual were found articulated. Next to these remains were fragments of leg bones, right and left hands, and the left radius and ulna in their proper relationship one to another. None of the other bones of these skeletons were in the immediate vicinity. However, five feet to the south a pile of bones was found that included two skulls, ribs, scapulae, and miscellaneous bones. Several beads were found mixed in with these bones. These skulls and other bones probably belong with the remains of the lower portions of the body found in Square 55 L 10. Evidence of this is that the pile contained only bones of the upper half of the body. The articulated bones showed some evidence of having been burned as they were very crumbly and black. It is possible that this was a partially cremated burial and that the unburned parts of the body were buried and the other bones scooped up and buried nearby.

# PLATE IX



Artifacts with Burial 23. a, two halves of copper ear spool in right hand of Burial 23 showing the string wound around the axle; b, copper beads with a pearl that made up a bracelet around the left wrist of Burial 22; c, fragments of shell finger ring (?) on right hand of Burial 23; d, fragment of shell finger ring on left hand of Burial 23; e, copper ear spool in left hand of Burial 23.

Several interesting artifacts were buried with these remains (Plate IX). In both hands of Burial 23 were copper ear spools. These were small (2 inches or 50 mm. in diameter) and had string around the axle. In each hand also were fragments of what appeared to be finger rings made from cut shells. In the right hand were two fragments that composed almost two-thirds of the total circumference of a ring while only one fragment was found in the left hand.

Around the left wrist of Burial 22 was a bracelet fashioned of copper disc beads of graded sizes, ranging from 2 to 8 mm. in diameter. In the center of this bracelet was a pearl 7.5 mm. in diameter. Cut shell beads (213) were found by the left wrist of Burial 23 and possibly were remains of a bracelet.



## RUTHERFORD MOUND

### BURIALS ABOVE THE GREY FLOOR AND IN THE PRIMARY MOUND FILL

Another group of burials (20) had been placed in the primary mound fill by the aborigines (See Fig. 4). These were about 2.5 feet above the clay floor and were concentrated in the north central portions of the mound. There was no particular indication that the level of these burials indicates any halting of the mound construction. There was no indication of humus development nor surfacing of the area. The data seem to indicate that these burials were included in the mound fill as the mound was being built up. I will discuss these in the same order as I did the burials from the floor of the mound.

#### BURIAL 18.

A few bones, too fragmentary to give much indication as to the nature of the burial, were found in Square 55 R 15 above and to the southwest of Burial 17. It may be that these bones belonged with Burial 17, but since they were found at a different level, they were given a separate designation.

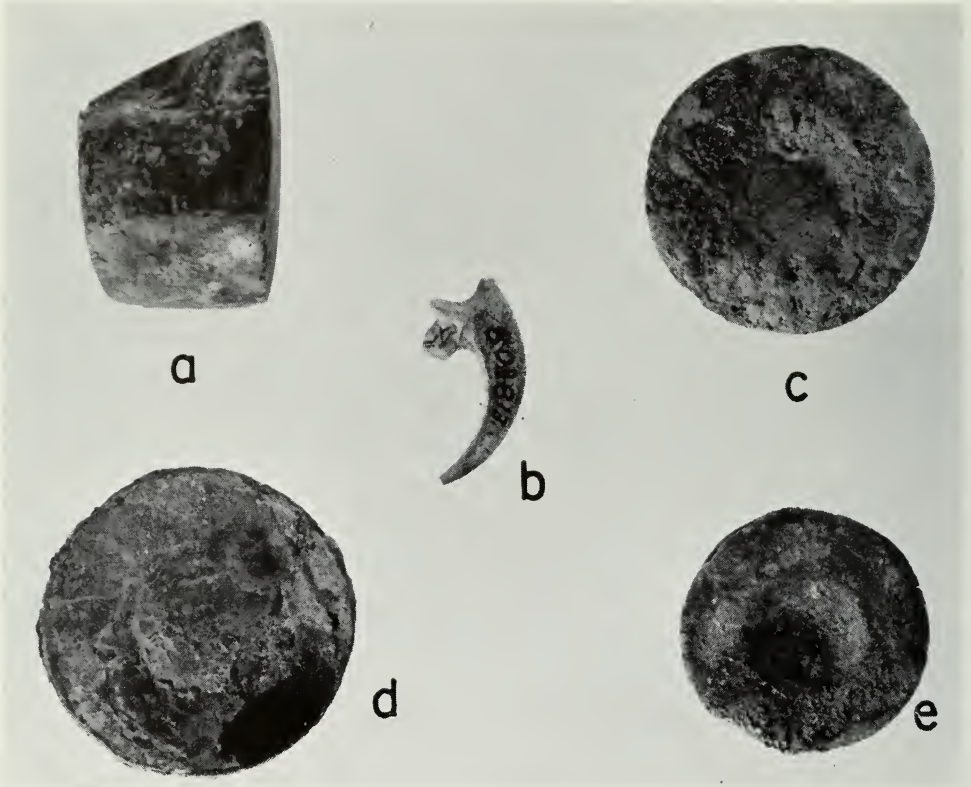
#### BURIALS 19, 20 AND 21.

Remains of three individuals were found in Squares 30 L 15 and 35 L 15. Burials 19 and 20 were incomplete remains of two extended burials. A copper ear spool was in the right hand of Burial 19 and a piece of worked galena near the left hand (Plate X, a and e). Burial 20 had no accompanying artifacts. Burial 21 consisted of a cranium in which a clay platform pipe was found (Plate VI). This platform pipe had a flat base ( $3\frac{7}{8}$  inches long and  $1\frac{11}{16}$  inches or 43 mm. in height). The hole in the base had never penetrated to connect with the bowl of the pipe, thus, it could never have actually been used for smoking.

#### BURIALS 3, 4, 5 AND 6.

Burials 3 and 4 were placed at the feet of Burials 5 and 6 and were semi-flexed with the knees slightly raised. The condition of these

PLATE X



Artifacts associated with Burials 9, 12 and 19. a, worked galena found with Burial 19; b, bird talon found with Burial 9; c, copper disc found with Burial 9; d, copper ear disc found with Burial 12; e, ear spool found with Burial 19.

burials was somewhat fragmentary with the bones of the chest decomposed and fragile. The knees and feet of Burials 5 and 6 were missing, whereas these portions of Burials 3 and 4 were complete. The skulls of Burials 5 and 6 were facing each other with the left hand of Burial 6 on the chest area of Burial 5. All four of these burials had beads. Burial 5 had a large number (198) of beads around the neck in several strands. Beads were found also around the necks of the other burials (571 with Burial 4) as well as under the arms and scapulae.

Above the right shoulder of Burial 5 was a shell gorget, oval shaped and about four inches at its largest diameter. Unfortunately the gorget was destroyed by vandalism.



## RUTHERFORD MOUND

At the left shoulder of Burial 6 was a sand-tempered pottery vessel of an unusual form for the Illinois area (Plate XI). This vessel had four feet and was conical in form. The surface was a dark grey to black in color and the entire vessel was decorated with simple stamp (grooved paddle) marks about three quarters of an inch in length.

PLATE XI



Pot found at the left shoulder of Burial 6. This tetrapodal vessel is sand tempered with a black paste. The surface is covered with horizontal simple stamped or grooved paddle marks. It is 8 inches high and 7 inches in diameter at the mouth.

## F O W L E R

On the pelvis of Burial 4 was a prismoidal flake knife similar to those found with Burial 31 in the mound floor and on the surface at the Kaegi Site.

### BURIAL 7.

Burial 7 was located on the chest region of Burial 4 and appeared to have been buried in a sitting position on top of Burial 4. No artifacts accompanied this burial.

### BURIALS 14 AND 15.

Burials 14 and 15 were found in Square 30 L 5. As in many other burials in this mound the foot bones were missing from these burials and the chest area was incomplete and deteriorated. On the chest of Burial 14 was a copper panpipe made up of four tubes. It was crushed by the weight of the soil upon it (see Plate IV, c). Fragments of reed and other materials from which the tubes had been made were found preserved in the copper tubes. Many beads were found in the neck area of Burial 14 and probably made up a necklace at one time. These beads were unusual for this mound; that is, they were disc-shaped with the hole drilled through the diameter of the disc. A mussel shell was found under the right lower arm bones of Burial 14, and in it were 10 globular beads of mussel shell.

### BURIALS 8 AND 9.

These two burials composed a pair whose bones were somewhat intermixed. The left arm of Burial 8 was missing and the right arm lay underneath the left arm of Burial 9. Burial 9 was composed of a skull, left arm, left leg and fragmentary pelvis. The bones of the chest, backbone, and right arm were missing. The right tibia was present and crossed over the left tibia, and the bones of the feet of these two burials were completely scattered. The only artifacts found with these burials were an eagle talon (probably Bald Eagle) and a copper disc found with Burial 9 (Plate X, b and c). The copper disc was near the right knee and some bone fragments. These fragments appear to belong to Burial 9 but are very close to Burial 11 and might belong to that individual.

## RUTHERFORD MOUND

### BURIALS 11, 12 AND 13.

These three burials seem to compose a group. Burial 11 was either cremated or dismembered before the time of burial, its only articulated portions being the lower vertebrae, the pelvis and the left leg. The right leg was partially in its proper position and partly mixed with other leg bones that may have come from Burial 9. The mandible of this burial was in the pelvis region and the cranium was lying in what would have been the chest area of the burial. Above the skull was a pile of bones consisting of the scapulae, rib fragments, finger bones, and parts of other bones. Burials 12 and 13 were interred side by side although neither was complete. The lower portions were intact with the bones of the chest and arm regions disturbed and greatly mixed.

The only artifacts accompanying Burial 11 were some *Marginella* shell beads mixed with the bones in the leg region and a small flake of mica under one of the scapulae. In the chest region of Burial 12 was a copper disc  $2 \frac{3}{16}$  inches or 55 mm. in diameter (Plate X, d). The underside of this disc was covered with a brown substance about one fourth of an inch thick, possibly leather or bark partly preserved by the copper salts. This may have been part of the garment worn by the individual or a container in which the disc was held.

The skull of Burial 11 indicated that it might have been a trophy skull as it was bleached white compared to the brownish color of the other skulls in this mound.

### BURIAL 10.

Although this burial was fragmentary, it was interred in a flexed position slightly above the level of the main group of burials with no accompanying artifacts.

### BURIAL 29.

Burial 29, a completely extended skeleton, was in some ways the richest and most spectacular in the mound (see Fig. 4). Among the artifacts buried with it was a shell dipper (*Busycon* sp.) (Plate XII) and a spoon made of mussel shell (Plate XIII). These objects were just to the left of the head. Around the neck was a necklace of unusual shell beads (Plate VII); that is, they were plano-convex and had diagonal perforation at either end of the diameter, indicating that they



PLATE XII



Busycon shell dipper found above left shoulder of Burial 29. It is  $7\frac{1}{2}$  inches in length.

PLATE XIII



Mussel shell spoons with Burials 29 and 26. a, with Burial 29; b, left shoulder of Burial 26; c, with turtle carapace dish with Burial 26.



## RUTHERFORD MOUND

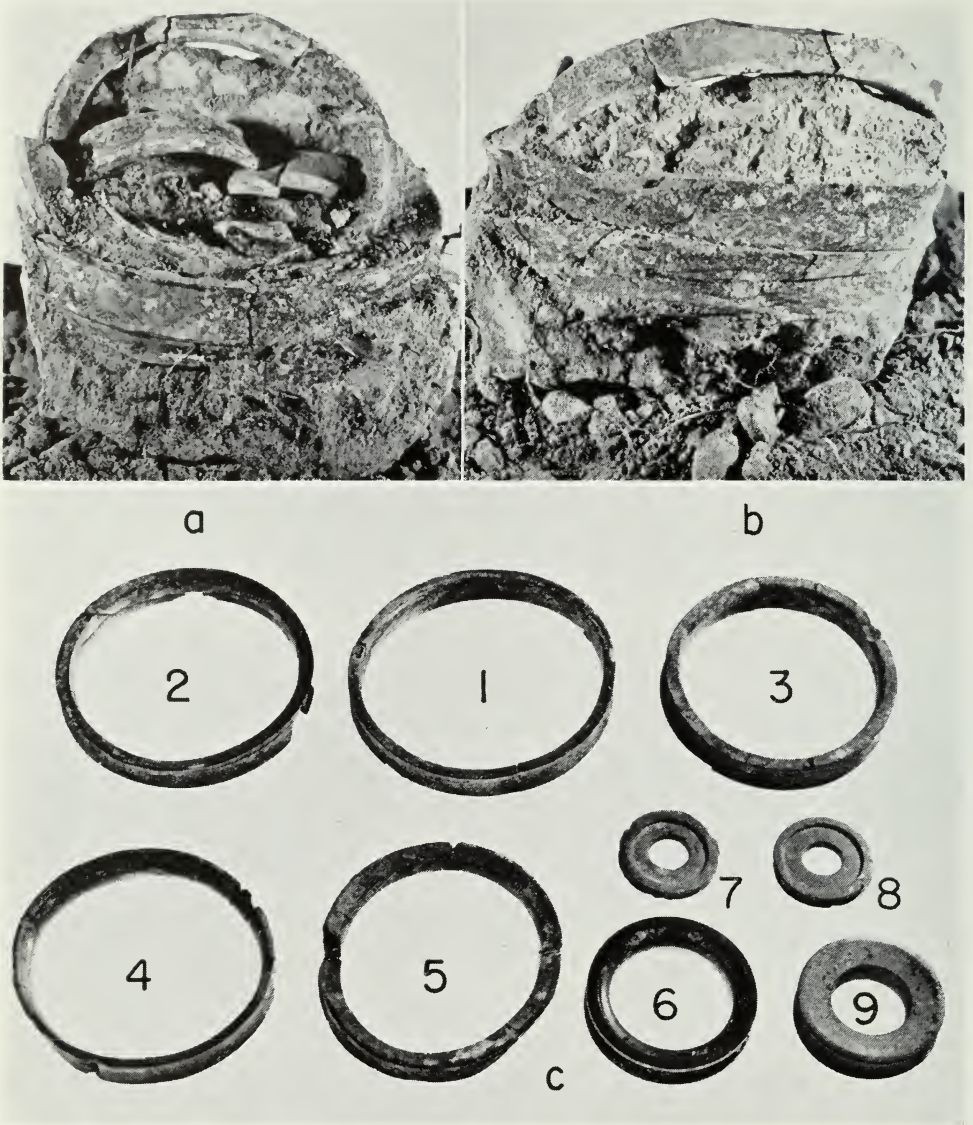
may have been sewn to a garment rather than being part of a necklace. Beads of the same type were found by both the right and left wrist. A tubular-shaped bead was found on top of the left pelvis (Plate VII). Near the left knee of Burial 29 was a cache of rings made of pottery, sandstone, cannel coal, and jet. These rings range from two and three quarters inches to seven and one quarter inches in diameter. They are illustrated in Plate XIV and the details of their measurements are given in Table III. The use to which these rings was put is highly conjectural. In shape they are somewhat similar to the ear spools or discs found in other Hopewellian mounds (especially rings Nos. 7 and 8 of the cache), yet the majority of them are too large to be considered for this purpose. Ring 6 had holes drilled in the quadrants. These holes are in pairs. They were not drilled perpendicular to the rim from the outside to the inside but were drilled as diagonal holes which penetrated from the rim to the side of the ring. Perhaps these holes were intended for attaching something to the ring or attaching the ring to some garment or other object.

The rings when found were neatly stacked (Plate XIV, a and b). Three rings (Nos. 1, 2 and 3) were stacked one on top of another, and two rings, one of cannel coal (No. 5) and the other of pottery (No. 4) were stacked originally perpendicular to the three and set inside the three rings on the bottom. Nestled inside of this stack were the two small discs (Nos. 7 and 8) and the one jet ring (No. 6) with the holes. Apparently one or two small pottery rings were also nestled inside as fragments of these were found scattered throughout the dirt inside the three other rings. Beside the cache was a ring made of sandstone (No. 9).

### BURIALS 26 AND 35.

Burial 26 was an adult and Burial 35 was either a child or infant buried to the left of the adult. Both of these burials were fragmentary although Burial 26 except for the right arm, ribs, backbone and pelvis seemed to be articulated. Near the left knee of Burial 26 was a dish made of a turtle carapace (*Pseudemys* sp.) (Plate XV). Inside the dish was a mussel shell spoon (probably *Lampsilis ventriculosa*) (Plate XV, a, and Plate XIII, a). A similar mussel shell was found near the left shoulder.

PLATE XIV



Cache of rings from Burial 29. a, view of cache from side nearest the burial; b, reverse side; c, view of separate rings (see Table III for dimensions). Arabic numerals refer to numbers in Table III.

TABLE III

## Measurements of Rings in Cache with Burial (see Plate XIV)

Ring No.	Material	Inside Diameter	Outside Diameter	Thickness (edge)	Thickness (center)	Width
1	(cannel coal)	161 x 177 mm. (6 3/4" x 7")	186 x 195 mm. (7 3/8" x 7 11/16")	9 mm. (3/8")	7 mm. (1/4")	28 mm. (1 1/8")
2	(cannel coal)	163 mm. (6 3/8")	184 mm. (7 1/4")	11 mm. (7/16")	7 mm. (1/4")	26 - 29 mm. (1" - 1 1/8")
3	(cannel coal)	139 x 152 mm. (5 1/2" x 6")	165 x 177 mm. (6 1/2" x 7")	12 - 13 mm. (1/2")	10 mm. (7/16")	30 mm. (1 3/16")
4	(pottery)	142 x 149 mm. (5 3/8" x 5 7/8")	170 x 161 mm. (6 1/4" x 6 3/4")	10 mm. (3/8")	9 mm. (3/8")	32 mm. (1 1/4")
5	(cannel coal)	130 x 128 mm. (5 1/8" x 5 3/4")	158 x 180 mm. (6 1/4" x 6 7/8")	15 mm. (9/16")	12 mm. (1/2")	23 - 26 mm. (15/16" - 1 1/16")
6	(jet?)	77 mm. (3")	112 mm. (4 7/16")	18 mm. (11/16")	12 mm. (1/2")	24 - 26 mm. (15/16" - 1")
7	(cannel coal)	25 mm. (1")	69 mm. (2 3/4")	22 mm. (7/8")	19 mm. (3/4")	11 mm. (7/16")
8	(cannel coal)	26 mm. (1")	69 mm. (2 3/4")	21 mm. (13/16")	19 mm. (3/4")	12 mm. (1/2")
9	(sandstone)	47 mm. (1 7/8")	94 mm. (3 11/16")	24 mm. (15/16")	18 mm. (11/16")	27 - 28 mm. (1 1/16" - 1 1/8")



PLATE XV



Turtle carapace dish found with Burial 26. a, dish as found with clam shell spoon (see Plate XIV), b, carapace dish cleaned and glued together.



## RUTHERFORD MOUND

### DISCUSSION AND COMPARISON

The Rutherford Mound is an unusual Hopewellian mound for the Illinois area in that no central tomb or group of burials was found. A group of burials was placed in a circle approximately 40 feet in diameter around the central area. Then the mound was built up about three feet and another group of burials included more or less in a circle but with the main group concentrated in the north half of the mound.

Another unusual aspect of this burial ground is the indication that many of the burials were either dismembered or partially disarticulated before burial. There is the possibility that some of these burials were partially cremated but proof of this must await detailed studies by the physical anthropologist. No evidence was found of a crematory area within the mound itself, but a concentration of charcoal and an area of fired earth was located in the northwestern quadrant of the mound just above the floor. The charcoal from this has been submitted to the University of Michigan Radiocarbon Laboratories for analysis. The contents appeared to be charcoal and did not indicate that it contained burned bones of any nature. It is possible that this was a ceremonial fire or may have been of a more mundane use such as cooking a meal for the persons working on the mound.

Other Hopewellian mounds have been excavated in which burials were scattered throughout the mound. An example of this is some of the mounds of the Hopewell group in Ohio (Mills 1926: Mound No. 4, Figure 8 and Page 135). The comparison here is not exact because the Ohio mounds contain crematory basins as well as tombs. Perhaps more comparable are the burial mounds of the Hamilton Focus (Lewis and Kneberg 1946) in Tennessee on Hiwassee Island where burials were found scattered throughout the mound.

There can be no question that the Rutherford Mound is a Hopewell burial site as many of the artifacts are distinctly Hopewell in nature. The copper panpipes (conjoined copper tubes) are similar to those found in Mound 20 of the Hopewell Group in Ohio (*op. cit.*: 130 and 266). The copper ear spools are also similar to those found in the Hopewell Group.

The unusual stone rings found in the Rutherford Mound find their nearest counterpart in a similar group of rings found in Mound 17 of

the Hopewell Group (*Ibid.*: 251-252). The Hopewell rings, however, are of a much smaller diameter and compare in shape and workmanship to rings Nos. 7 and 8 of the Rutherford cache.

Stone rings called ear ornaments were found in the Tremper Mound (Mills 1916: 217). However, these were only a little over one and one half inches in diameter and were not strictly comparable in shape to the Rutherford Mound specimens.

Of particular interest are the copper bracelets from Mound 17 of the Hopewell Group which have a plano-convex section and although being smaller in diameter are very similar in shape to Rings 1 to 5 of the Rutherford cache.

The effigy pipes from the Rutherford Mound are similar to the many pipes found in Ohio Hopewell sites. The falcon effigy finds no exact counterpart in the style of workmanship although several hawk or falcon pipes were found in the Tremper Mound (Mills 1916: 169 and following). Crow or raven effigies appear among the Ohio pipes. A pipe with a crow head on it was found in the Tremper Mound (*Ibid.*: 184) whereas two complete crow effigies were found in the Mound City Group (Mills 1922: 330-340). During the summer of 1955 another crow or raven effigy pipe was found in the Bedford Mound Group in Calhoun County, Illinois, during the excavations by the Gilcrease Foundation. This effigy is almost identical to the one from the Rutherford Mound, being somewhat smaller, however, and with more delicate workmanship.

The pottery vessel found with Burial 6 is an unusual specimen for Illinois. Vessels with four feet are reported from Mound 2 of the Mound City Group (Mills 1922: 333), and from Mound 17 of the Hopewell Group (Mills 1926: 385); however, neither of these vessels has the same shape or surface treatment that the vessel from the Rutherford Mound has. The nearest counterpart we can find for this vessel is in the material illustrated for the Tchefuncte Culture (Ford and Quimby 1945: Figure 17b). The Rutherford pot resembles, in tempering, surface treatment, form and presence of tetrapodal supports, the simple stamped types of the Southeast. The temporal range of simple stamping with tetrapods, insofar as it can be expressed for all of the southeastern regional variants (Bluff Creek Simple Stamped [Alabama limestone

## RUTHERFORD MOUND

tempered], Mossy Oak, Cartersville, and Deptford Simple Stamped [Georgia] ), probably extends from the latter half of the first millenium B.C. into the beginning of our era (J. R. Caldwell, personal communication). Although this vessel form is common throughout the southeastern United States there are no exact counterparts in the Illinois Hopewell cultures.

The other pottery vessels found in the mound offer some clues in making comparisons of the Rutherford Mound with other sites. The globular cord-marked vessel is similar to late or post Hopewell wares in other areas of the state. In some characteristics, however, it compares with vessel forms more common in the southeast. Another vessel, the beaker shape, is also more common to southeastern pottery wares. This vessel and the one found with it are covered with crude rocker stamping which may indicate that they belong to a late Hopewell time period. Griffin (1951) has pointed out that in the Illinois River Valley crude rocker stamping is characteristic of late Hopewell Sites.

## KAEGI SITE

Near the Rutherford Mound and in the river bottoms is the Kaegi Site (see Figure 1). This site is known from surface collections made by the field party in 1954 and Mr. H. Eugene Kaegi as he cultivated this field. Although the materials are not plentiful they are scattered over an area of several acres. The Kaegi Site assemblage is illustrated in Plates XVI and XVII. Among the chipped stone objects, the prismoidal flake knives are the most outstanding and by far the most common artifacts found on this site. They are made from many different kinds of chert and vary greatly in size. The knives of the Kaegi Site are typical in this area of the Hopewell culture and are very similar to flake knives found with Burials 4 and 30 of the Rutherford Mound. The other chipped flint objects are side-notched and stemmed projectile points, crude scrapers, and cores. A small chopper, or gouge, was chipped from sandstone.

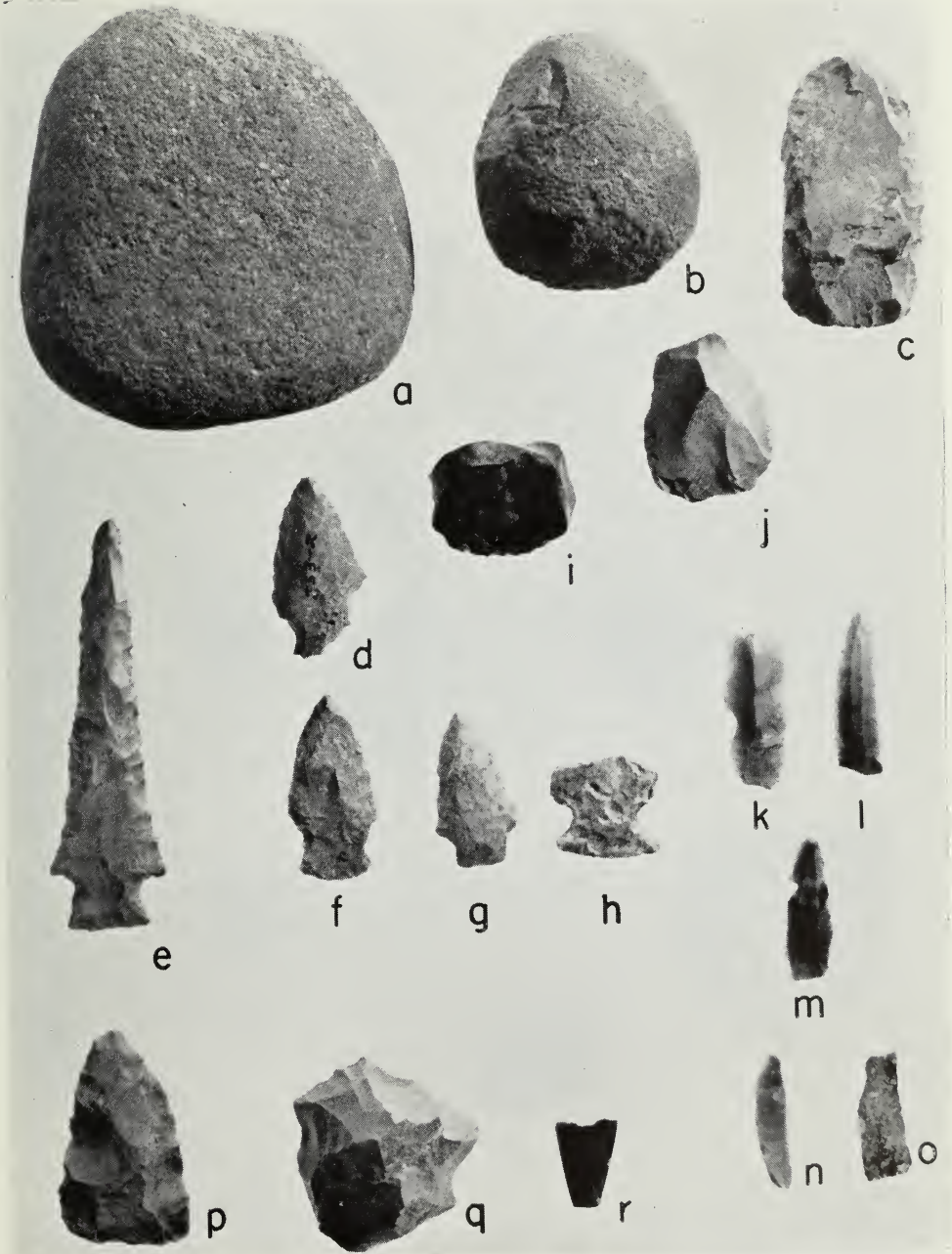
Small fragments of slate and cannel coal were found on the surface of the site. One piece of slate was worked and possibly a part of a small bar gorget (Plate XVII).

All of the pottery found on the Kaegi Site is clay or grit-tempered except two sherds, which appear to be limestone tempered (Plate XVII). The exterior surface of this pottery is cord marked, although some sherds are plain or brushed. Decorative techniques used on the pottery were incising, zoning, and rocker stamping. One sherd has a zone that had been filled in with brushing (Plate XVII). The rocker stamping observed was all plain. Lips are either beveled or squared on the surface, the latter being the most common, and are plain for the most part, although two sherds are notched. A pie crust top made by alternately notching the interior and exterior occurred on one rim sherd, while another rim sherd has an embossed node on the outside. An unusual type of decoration, hollow reed stamping over cord marking, was noted on a grit tempered sherd (Plate XVII).

At the present time there is little more that can be said about the Kaegi Site. The pottery gives the impression of belonging to a late Hopewell horizon. A relationship between this site and the Rutherford Mound is indicated by the presence of prismoidal flake knives and rocker-stamped clay-tempered pottery in both sites. It may be signifi-

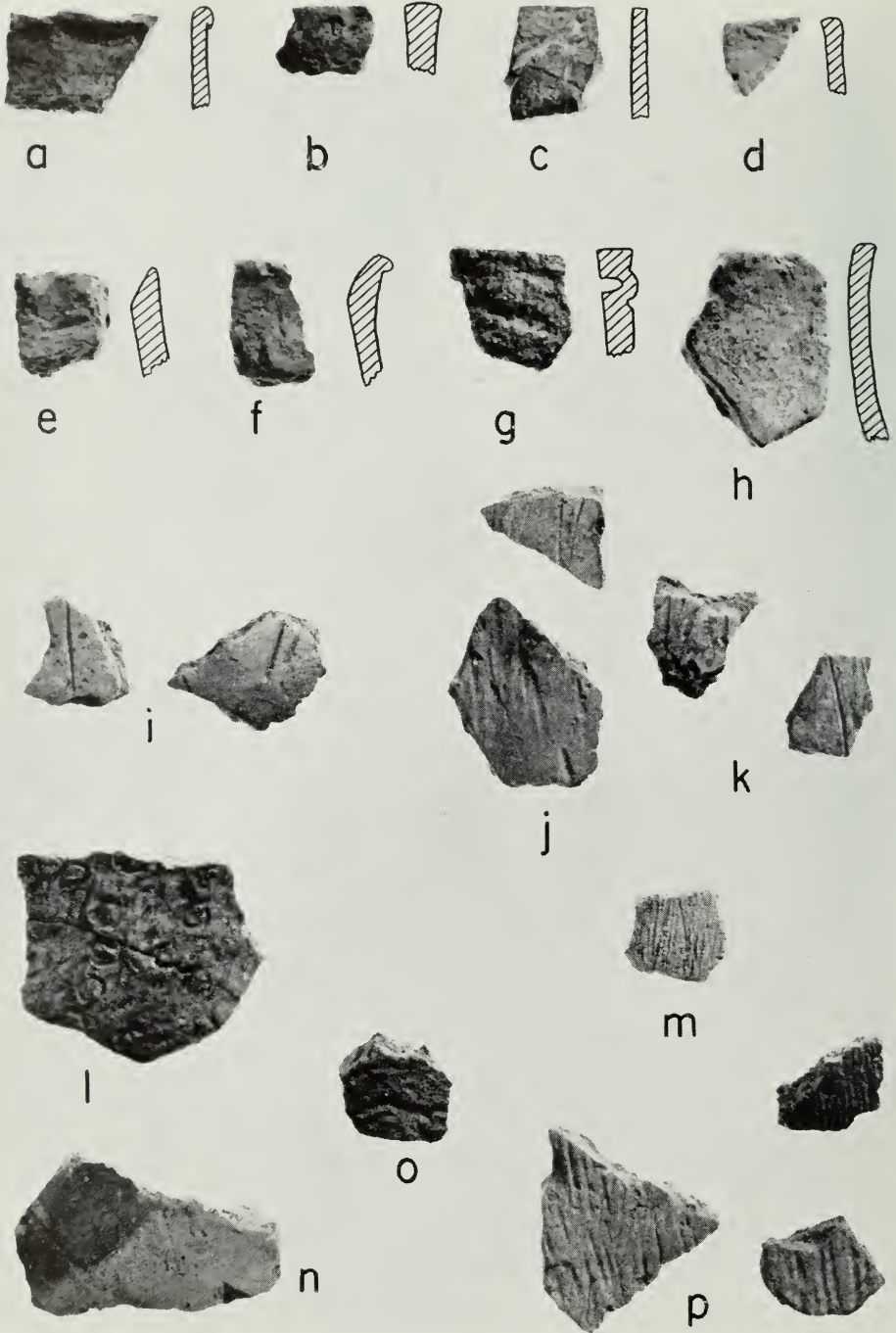


PLATE XVI



Rough and chipped stone artifacts from the Kaegi site. a, hammerstone and mano; b, hammerstone; c, chopper of chipped sandstone; d-h, stemmed projectile points; i and j, crude scrapers; k-o, prismoidal flake knives; p, blank; q, chert core; r, worked shale gorget fragment.

PLATE XVII



Pottery from the Kaegi Site. a-h, rim sherds; i, stamped or incised sherds; j, three rocker-stamped sherds; k, zoned sherd with brushing; l, reed stamped; m, brushed surface; n, plain surface; o and p, cord-marked sherds.

## RUTHERFORD MOUND

cant that side-notched points were found in the mound and in the surface collection at the Kaegi Site.

This is not to say that the people who built the Rutherford Mound also lived at the Kaegi Site. The indications at the Kaegi Site suggest both belong to the same relative time period and culture.

## SUMMARY AND CONCLUSIONS

Evidence has been presented of a Hopewellian mound and village site located in Hardin County, Illinois. The mound was unusual in that it contained no central burial pit or area. One group of burials was found at the bottom of the mound completely encircling the central area. Another group found at a level two to three feet above the lower level was concentrated in the north central portions of the mound. Artifacts such as platform pipes, copper ear spools and panpipes indicate the Hopewell affiliation of this site. Many of the burials were partially disarticulated indicating either exposure before burial, partial cremation, or mutilation of the bodies before burial.

The most unusual and intriguing artifacts found in this mound were stone and pottery rings with Burial 26. No exact counterpart for these rings has been found and the use to which they were put is purely speculative.

Although some similarities in pottery were noted for Illinois Hopewell sites other characteristics indicated similarities with pottery for the southeastern United States.

The exact temporal position of these ceramic correlations is difficult to ascertain. Caldwell (personal communication) suggests a period ranging around zero A.D. for simple stamped pottery with tetrapods such as the one found with Burial 6. While no radiocarbon dates have been given yet for any Weaver sites, dates on Hopewell sites in Illinois range from 500 B.C. to 300 A.D. The Wilson Mound in White County, Illinois (the excavated Hopewellian site nearest the Rutherford Mound) has been given an age of about 100 B.C. (Deuel 1951: 198)\*. On the basis

\*The Phoenix Memorial Project Radiocarbon Laboratory has tested further charcoal samples from the Wilson mound and determined an age of 2000 plus or minus 300 years for the tomb (personal communication from James B. Griffin to Thorne Deuel). Samples of deer antler are also being tested and comment on these dates will be published in the future.

of typological considerations previously enumerated the three pots found in the mound fill suggest a late Hopewell time period. On the basis of these considerations I would suggest a dating of about 300-500 A.D. Confirmation or contradiction of this speculative dating will be obtained when the radiocarbon assay of the charcoal sample from this mound is completed.

Since the above was written, the University of Michigan Memorial-Phoenix Project Radiocarbon Laboratory has completed its assay of the charcoal sample from the Rutherford Mound. This was given an age of 1525 years ago  $\pm$  200 years or about 432 A.D. (Sample M560. Personal communication, James B. Griffin to Thorne Deuel).



## RUTHERFORD MOUND

### REFERENCES CITED

Deuel, Thorne

- 1952 "The Hopewellian Community," *Hopewellian Communities in Illinois*, Scientific Papers, Vol. V, Illinois State Museum, Springfield.

Ford, James A.

- 1952 Measurements of Some Prehistoric Design Developments in the Southeastern United States. *Anthropological Papers of The American Museum of Natural History*, Vol. 44, Part 3, New York.

Ford, James A. and George I. Quimby

- 1945 The Tchefuncte Culture, an Early Occupation of the Lower Mississippi Valley, *Memoir No. 2*, Society for American Archaeology. Menasha.

Ford, James A. and Gordon Willey

- 1940 Crooks Site, a Marksville Period Burial Mound in LaSalle Parish, Louisiana. *Anthropological Study No. 3*, Department of Conservation, Louisiana Geological Survey, Baton Rouge.

Fowler, Melvin L.

- 1952 "The Clear Lake Site: Hopewellian Occupation," *Hopewellian Communities in Illinois*, Scientific Papers, Vol. V, Illinois State Museum, Springfield.
- 1955 "Ware Groupings and Decorations of Woodland Ceramics in Illinois," *American Antiquity*, Vol. XX, No. 3, January, 1955.
- 1957 "Ferry Site, Hardin County, Illinois," *Scientific Papers*, Vol. VIII, No. 1, Illinois State Museum, Springfield.

Griffin, James B.

- 1952 "Some Early and Middle Woodland Pottery Types in Illinois," *Hopewellian Communities in Illinois*, Scientific Papers, Vol. V, Illinois State Museum, Springfield.

F O W L E R

Lewis, T. M. N. and Kneberg, Madeline

- 1946 *Hiwassee Island, An Archaeological Account of Four Tennessee Indian Peoples*, University of Tennessee Press, Knoxville, Tenn.

Maxwell, Moreau

- 1951 *Woodland Cultures of Southern Illinois*. The Logan Museum, Beloit College, Beloit, Wisconsin.
- 1952 "The Archaeology of the Lower Ohio Valley" in *Archaeology of Eastern United States*, edited by James B. Griffin, pp. 176-89. University of Chicago Press.

Mills, William C.

- 1916 "Exploration of the Tremper Mound," *Certain Mounds and Village Sites in Ohio*, Vol. 2, Part 3, pp. 168-171.
- 1922 "Exploration of the Mound City Group," *Certain Mounds and Village Sites in Ohio*, Vol. 3, Part 4, pp. 332-341.
- 1926 "Exploration of the Hopewell Group," *Certain Mounds and Village Sites in Ohio*, Vol. 4, Part 4, pp. 204-267.





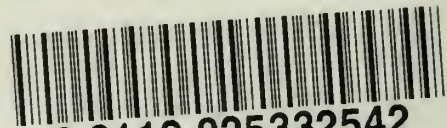








UNIVERSITY OF ILLINOIS-URBANA  
913.773F82R C001  
RUTHERFORD MOUND SPRINGFIELD



3 0112 025332542